Press Release

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GoldenRAM: a State-of-the-Art Earth Observation Platform for Raw Materials

Horizon Europe project aims to transform raw material information exchange with the GoldenRAM Earth Observation platform, leveraging the latest in IT, Cloud, and AI technologies.

The Technical Research Centre of Finland and 11 partners kicked-off the Horizon Europe project GoldenRAM (GA: 101138153), funded by the European Commission. This 3-year long project aims to enhance raw materials information exchange by developing an Earth Observation Platform which depmarloys the latest advances in IT, Cloud and AI technologies. The platform is designed to facilitate the exchange of accurate information on Raw Materials in Europe and partner countries to support mining companies, stakeholders in the mining industry, and the public.

Europe requires critical raw materials (CRMs) for several key reasons, chiefly among them the continent's commitment to a sustainable and digital future. CRMs such as lithium, cobalt, and rare earth elements are vital for renewable energy technologies, electric vehicles, and digital devices, all of which are central to reduce carbon emissions, achieve climate neutrality and reach the European Union's Green Deal and digital transition goals. CRMs are however highly vulnerable to supply disruptions, and as global demand for rare earth metals and lithium is set to increase almost six-fold by 2030 according to global technology intelligence firm ABI Research, Europe must ensure strong, resilient, and sustainable value chains for critical raw materials to realise its decarbonisation and digital transition goals.

The GoldenRAM platform aims to address some of the key challenges faced by the European mining industry, including environmental sustainability, resource management, and operational efficiency. By providing an integrated and user-friendly platform, the project seeks to foster greater transparency and collaboration between stakeholders, contributing to Europe's CRM goals. By way of several field trials across Europe, the project will demonstrate the potential value of the platform in various stages of the raw materials value chain, from exploration to site closure.

Dr. Marko Paavola, Project Coordinator and Senior Researcher at VTT stated, "*GoldenRAM brings together an expert team of mining end users, technology providers, and research organizations. With this platform, we're putting advanced technology to practical use. It's about turning data into decisions that support both industry needs and environmental stewardship, solving today's challenges of the mining industry in a sustainable way*".

The consortium behind this project includes some of Europe's leading tech companies and research institutes, renowned for their expertise in artificial intelligence, earth sciences, and sustainable development in the field of raw materials. Coordinated by VTT (Finland) and

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Technical Manager OPT/NET (The Netherlands), the consortium partners include BGR (Germany), EFTAS (Germany), GTK (Finland), Technical University of Cluj-Napoca (Romania), GIUA (Ukraine), CloudFerro (Poland), Evenflow (Belgium), and mining companies such as Boliden (Sweden), Cupru Min (Romania), Sokli (Finland), and Savannah Resources (Portugal).

For more information about the GoldenRAM project, its partners, and its objectives, please visit www.goldenram-project.eu

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